

Appendix A

District Programs

This Appendix provides information regarding air district implementation of the Carl Moyer Program, including state funding received, local match funding provided, types of projects funded, outreach efforts, project solicitation mechanisms, number of applicants funded, and average program cost-effectiveness. Table A-1 includes the state grant awards provided to air districts, while Table A-2 details the local match funds provided and funding sources for each air district. Table A-3 indicates the California Department of Motor Vehicles Air Quality Fees which many air districts use to help fund their air quality incentive programs. Table A-4 provides a variety of information regarding each district's program implementation, such as the types and average cost-effectiveness of projects funded. These tables are followed by a summary page for each air district which describes how each district implements the Carl Moyer Program, and highlights the project categories funded and emission benefits of the program in each area.

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Table A-1: Air District Carl Moyer Program Grant Awards (\$)

District	Year 1 1998-99	Year 2 1999-00	Year 3 2000-01	Year 4 2001-02	Year 5 2002-03	Year 6 2003-04	Year 7 ¹ 2004-05	Year 8 ¹ 2005-06	Total
Amador	-	-	-	-	100,000 ²	100,000 ³	200,000 ⁴	-	400,000
Antelope	302,571	225,000	450,000	210,149	269,652	282,930	277,087	523,328	2,540,717
Bay Area	2,500,000	1,880,000	4,306,133	1,570,344	1,894,911	1,652,595	2,478,161	10,318,307	26,600,451
Butte	-	77,842	176,750	75,000	100,000	100,000	200,000	200,000	929,592
Calaveras	-	-	-	-	100,000	100,000	200,000 ⁴	200,000	600,000
Colusa	-	-	-	75,000	100,000	100,000	200,000	200,000	675,000
Feather River	-	69,101	176,750	75,000	100,000	100,000	200,000	200,000	920,851
Glenn	100,000	53,743	150,000	75,000 ⁵	100,000	100,000	200,000	200,000	978,743
Great Basin	-	-	-	-	-	-	200,000 ⁴	-	200,000
Imperial	134,800	69,993	176,750	75,000	100,000	100,000	241,022	384,803	1,282,368
Kern	-	225,000 ⁶	325,000 ⁶	-	100,000	100,000	200,000 ⁴	200,000	1,150,000
Lake	-	-	-	-	100,000	100,000 ⁷	200,000 ⁴	-	400,000
Lassen	-	-	-	-	100,000	100,000	200,000	200,000	600,000
Mariposa	-	-	-	-	100,000 ⁸	100,000 ³	-	-	200,000
Mendocino	-	62,018	150,000	75,000	100,000	100,000	200,000	200,000	887,018
Modoc	-	-	-	-	100,000 ⁹	100,000	-	200,000	400,000
Mojave	845,791	635,678	1,535,530	-	100,000	100,000	200,000	722,955	4,139,954
Monterey	265,800	145,183	450,000	217,553	293,779	266,638 ³	427,243	1,209,456	3,275,652
N. Coast	100,000	73,255	176,750	75,000	100,000	100,000	200,000	200,000 ¹⁰	1,025,005
N. Sierra	127,700	52,692	176,750	75,000	100,000	100,000	227,940	-	860,082
N. Sonoma	113,900	-	150,000	75,000	100,000	100,000	211,590	251,571	1,002,061
Sacramento	1,927,791	1,677,042	3,909,604	1,438,944	1,981,316	1,631,110 ³	2,098,147	6,559,105	21,223,059
San Diego	1,085,661	809,498	1,850,344	714,147	867,328	919,738	1,190,957	4,364,589	11,802,262
San Joaquin	4,399,801	3,187,452	7,644,979	2,757,263	3,187,325	2,793,355	2,821,709	11,829,362	38,621,246
San Luis Obispo	157,800	83,196	176,750	75,000	100,000	100,000	252,299	419,306	1,364,351
S. Barbara	302,571	225,000	450,000	210,149	208,902	227,365 ³	325,104	725,849	2,674,940
Shasta	-	72,977	176,750	75,000 ⁵	-	-	231,499	200,000	756,226
Siskiyou	-	-	-	-	100,000 ⁹	100,000 ³	-	-	200,000
South Coast	11,275,591	8,349,769	19,745,849	7,055,564	8,148,088	7,448,659	11,906,373	34,566,109	108,496,002
Tehama	-	-	150,000	75,000 ⁵	100,000	100,000	200,000 ⁴	-	625,000
Tuolumne	-	-	-	-	100,000	100,000	200,000	-	400,000
Ventura	860,221	645,561	1,543,561	605,888	728,699	677,610	662,869	2,253,398	7,977,807
Multi-District	-	-	-	-	-	-	2,928,000	8,631,863 ¹⁰	11,559,863
Totals (\$)	24,499,997	18,620,000	44,100,000	15,680,001	19,680,000	18,000,000	29,280,000	84,960,001	254,820,000

1 – Totals are for project funding only and do not include funds for Year 7 and 8 program administration.

2 – \$66,010 of the Amador County APCD Year 5 grant award was returned to the State of California General Fund.

3 – The Amador County APCD, Mariposa County APCD, and Siskiyou County APCD each received \$100,000 Year 6 grant awards, which they returned to ARB for redistribution to the Monterey Bay Unified APCD (\$138,683), Sacramento Metropolitan AQMD (\$138,683) and Santa Barbara County APCD (\$22,634). Year 6 award totals for the recipient three air districts are therefore \$405,321, \$1,769,793, and \$249,999, respectively.

4 – Several rural air districts are returning their Year 7 awards to ARB to help fund rural multi-district projects. The air districts and grant amount returned are: Amador County APCD (\$200,000), Calaveras County APCD (\$200,000), Great Basin APCD (\$139,712), Kern County APCD (\$80,093), Lake County AQMD (\$200,000), and Tehama County APCD (\$137,045).

5 – The Glenn County APCD and Shasta County APCD returned \$55,000 and \$19,593, respectively, of their \$75,000 awards. These funds were redistributed to the Tehama County APCD. The Year 4 Tehama County APCD total grant award is therefore \$149,593.

6 – Rural air districts returned a total of \$501,750 in Year 2 and 3 grants to ARB to fund multi-district projects. The largest grant returned was from the Kern County APCD, which returned \$125,000 of its Year 2 grant and its entire \$325,000 Year 3 award.

7 – \$7,659 of the Lake County APCD Year 6 grant award was returned to the State of California General Fund.

8 – \$94,489 of the Mariposa County APCD Year 5 grant award is being returned to the State of California General Fund.

9 – The Siskiyou County APCD received a \$100,000 Year 5 grant award, which it transferred to the Modoc County APCD. The Year 5 total grant award for the Modoc County APCD is therefore \$200,000.

10 – The North Coast Unified AQMD returned \$139,008 in Year 8 funds, which were applied to Year 8 Multi-District projects. This amount shall be deducted from the Year 9 Multi-District funding total and allocated to air districts in the Year 9 funding cycle.

Table A-2: Air District Carl Moyer Program Match Funding

District Name	Source	Year 1 (\$)	Year 2 (\$)	Year 3 (\$)	Year 4 (\$)	Year 5 (\$)	Year 6 (\$)	Year 7 (\$)	Year 8 (\$)	Total
Antelope Valley	DMV Fund	151,286	112,500	122,449	105,074	134,826	141,465	126,178	82,129	975,907
Bay Area	DMV Fund	1,250,000	940,000	1,171,737	785,172	947,456	826,298	1,128,488	1,613,302	8,662,453
Butte	DMV Fund, BUG	-	38,921	48,095	37,500	-	-	-	-	124,516
Colusa	BUG	-	-	-	37,500	-	-	-	-	37,500
Feather River	DMV Fund	-	34,550	48,095	37,500	-	-	-	-	120,145
Glenn	DMV Fund, Settlement Actions, and General Fund	50,000	26,871	40,816	37,500	-	-	-	-	155,187
Imperial	DMV Fund	67,400	34,996	48,095	37,500	-	-	109,755	60,390	358,136
Kern (Eastern)	DMV Fund, Excess Emission Fees	-	50,000	-	-	-	-	-	-	50,000
Mendocino	DMV Fund	-	31,009	40,817	37,500	-	-	-	-	109,325
Mojave Desert	DMV Fund, CMAQ	422,896	317,839	417,831	-	-	-	-	113,458	1,272,024
Monterey Bay	DMV Fund	132,900	72,591	122,449	108,776	146,890	133,319	194,555	189,207	1,100,687
N. Sierra	DMV Fund	63,850	26,346	48,096	37,500	-	-	103,798	-	279,589
N. Sonoma	DMV Fund	56,950	-	40,817	37,500	-	-	96,352	39,448	271,066
North Coast	DMV Fund	50,000	36,627	48,095	37,500	-	-	-	4,630	176,852
Sacramento	DMV Fund, Measure A	963,896	838,521	1,063,838	719,472	990,658	884,897	955,440	1,029,364	7,446,086
San Diego	DMV Fund	542,831	404,749	503,495	357,073	433,664	459,869	542,330	684,964	3,928,975
San Joaquin	DMV Fund, CMAQ	2,199,901	1,593,726	2,080,266	1,378,631	1,593,663	1,396,678	1,284,931	1,856,460	13,384,256
San Luis	DMV Fund, Private Funding	78,900	41,598	48,095	37,500	-	-	114,890	65,804	386,787
Santa Barbara	DMV Fund, Mitigation Fee	151,286	112,500	122,449	105,074	104,451	125,000	148,044	113,912	982,716
Shasta	DMV Fund	-	38,488	48,095	37,500	-	-	105,418	-	229,501
South Coast	MSRC, Clean Fuels Fund	5,637,796	4,174,884	5,373,020	3,527,782	4,074,044	3,724,330	5,421,846	5,424,688	37,358,391
Tehama	DMV Fund, BUG	-	-	40,816	75,000	-	-	-	-	115,816
Ventura	DMV Fund, District Fees, Reliant Mitigation Fees, and BUG	430,111	322,780	420,017	302,944	364,350	338,805	301,853	352,479	2,833,339
Totals		12,250,003	9,249,496	11,897,483	7,877,498	8,790,002	8,030,661	10,633,878	11,630,235	80,359,256

DMV Fund = Department of Motor Vehicle vehicle registration fees. CMAQ = Federal Congestion, Mitigation, and Air Quality Fund; BUG = Back-UP Diesel Generator Funds.

**Table A-3:
California Department of Motor Vehicles Air Quality Fees**

District Name	First \$4	Second \$2 (AB 923)	Extra \$1¹
Amador County APCD	\$2	--	--
Antelope Valley AQMD	\$4	\$2	--
Bay Area AQMD	\$4	\$2	--
Butte County AQMD	\$4	--	--
Colusa County APCD	\$4	\$2	--
El Dorado County APCD	\$4	\$2	--
Feather River AQMD	\$4	\$2	--
Glenn County APCD	\$2	--	--
Imperial County APCD	\$4	\$2	--
Kern County APCD	\$4	--	--
Mendocino County APCD	\$4	\$2	--
Mojave Desert AQMD	\$4	--	--
Monterey Bay Unified APCD	\$4	\$2	--
North Coast Unified AQMD	\$4	--	--
Northern Sierra AQMD	\$4	--	--
Northern Sonoma County APCD	\$4	\$2	--
Placer County APCD	\$4	\$2	--
Sacramento Metropolitan AQMD	\$4	\$2	--
San Diego County APCD	\$2	--	--
San Joaquin Valley Unified APCD	\$4	\$2	\$1
San Luis Obispo County APCD	\$4	\$2	--
Santa Barbara County APCD	\$4	\$2	--
Shasta County APCD	\$3	--	--
South Coast AQMD	\$4	\$2	\$1
Tehama County APCD	\$4	--	--
Ventura County APCD	\$4	\$2	---
Yolo-Solano AQMD	\$4	\$2	--

Data from California Department of Motor Vehicles, September 13, 2006.

1 - The South Coast and San Joaquin Valley air districts are authorized to impose an additional \$1 per vehicle fee to reduce emissions from motor vehicles.

(HSC § 9250.11 and HSC § 9250.16)

**Table A-4: Carl Moyer Program Summary Information
Years 1 through 6**

Air District	Total Project Funding (Years 1 - 8)	Project Application Process¹	Source Categories Funded²	EJ Evaluation (yes/no)	Average Project Life³ (years)	Number of Applicants Funded⁴	Average Funding Amount per Applicant⁴	Average NOx C/E⁵
South Coast	\$108,496,002	RFP	R,O,M,L	Yes	11	76	\$ 562,700	\$ 2,700
San Joaquin	\$38,621,246	FCFS	A,R,O	Yes	7	694	\$ 34,300	\$ 2,100
Bay Area	\$26,600,451	RFP	M,O,L,R,A	Yes	17	38	\$ 324,600	\$ 1,700
Sacramento	\$21,361,742	FCFS	A,O,R,L	Yes	6	282	\$ 45,000	\$ 4,300
Multi-District	\$12,061,613	RFP	R,M	Yes	14	3	\$ 161,000	\$ 1,800
San Diego	\$11,802,262	RFP	M,R,O,A,L	Yes	12	37	\$ 168,600	\$ 3,100
Ventura	\$7,977,807	RFP	M,R,A,O	No	14	65	\$ 81,200	\$ 2,900
Mojave	\$4,139,954	FCFS	O,A,R	No	6	18	\$ 184,500	\$ 4,100
Monterey	\$3,414,335	FCFS	M,A,R,O	Yes	10	37	\$ 48,600	\$ 3,900
S. Barbara	\$2,697,574	RFP	R,A,M,O,T	No	8	38	\$ 43,300	\$ 3,700
Antelope	\$2,540,717	FSFS	A,R,O	No	8	15	\$ 116,000	\$ 1,500
San Luis Obispo	\$1,364,351	RFP	M,R,A,O	No	10	14	\$ 49,400	\$ 3,300
Imperial	\$1,282,368	FCFS	A,O	No	10	45	\$ 14,600	\$ 1,500
North Coast	\$1,025,005	FCFS	R,O,M	No	8	25	\$ 25,000	\$ 3,200
N. Sonoma	\$1,002,061	RFP	R,M	No	12	4	\$ 131,700	\$ 3,100
Butte	\$929,592	RFP	A,O,R	No	7	47	\$ 11,200	\$ 2,200
Glenn	\$923,743	RFP	A,R	No	6	62	\$ 8,600	\$ 1,300
Feather River	\$920,851	RFP	A,O,R	No	6	28	\$ 18,500	\$ 1,800
Mendocino	\$887,018	RFP	R,A,M,O	No	10	21	\$ 23,000	\$ 3,500
N. Sierra	\$860,082	FCFS	R,O	No	7	18	\$ 34,000	\$ 5,200
Shasta	\$736,633	RFP	R,A,O	No	7	26	\$ 8,100	\$ 1,400
Colusa	\$675,000	FCFS	A	No	7	22	\$ 12,300	\$ 1,100
Kern	\$619,907	FCFS	A,R	No	6	8	\$ 37,500	\$ 1,200
Lassen	\$600,000	FCFS	A	No	7	12	\$ 16,800	\$ 1,900
Modoc	\$500,000	FCFS	O,R,A	No	10	4	\$ 75,000	\$ 5,500
Tehama	\$499,593	FCFS	A,O,R	No	7	32	\$ 15,700	\$ 1,900
Calaveras	\$400,000	FCFS	O,R	No	5	2	\$ 99,200	\$ 7,100
Tuolumne	\$400,000	FCFS	R	No	5	n/a	n/a	\$23,400 ⁶
Lake	\$192,341	RFP	R,O	No	5	5	\$ 38,700	\$ 5,800
Mariposa	\$100,000	FCFS	R	No	5	1	\$ 5,511	\$ 13,000
Amador	\$33,990	FCFS	O	No	5	1	\$ 34,000	\$ 5,900
ALL	\$253,666,238	--	A,R,M,O,L	--	10	1629	\$ 73,500	\$ 2,600

1 – RFP = request for proposals; FCFS = first-come, first-served.

2 – A = agricultural irrigation pumps; L = locomotives; M = marine vessels; O = off-road equipment; R = on-road heavy- and medium-duty vehicles. Categories are listed in descending order of total Year 1 through 6 funding amount.

3 – Project life is weighted by funding, such that Average Project Life reflects an average per dollar rather than per engine.

4 – Results indicate the number of discrete applicants funded in the program's first six years. Results are rounded to the nearest hundred dollars.

5 – Average Cost-Effectiveness is rounded to the nearest hundred dollars.

6 – The Tuolumne County APCD purchased 11 on-road heavy-duty vehicle diesel particulate filters, which achieve no NOx reductions and therefore adversely impact the program's average NOx cost-effectiveness.

**Local Air District
Carl Moyer Program
Summaries**

Bay Area AQMD

The Bay Area AQMD has participated in the Carl Moyer Program since the program's inception. Over the first six years, ARB has provided the district with \$13,803,983 of Carl Moyer Program funds, which the district has matched with \$5,920,663 in local funds. In Years 7 and 8, the district received an additional \$12,796,468 in Carl Moyer Program funding, which it matched with \$2,741,790 in local funds. The Bay Area AQMD has completed all its projects from the program's first five years. However, as of October 2006 the district had not expended about \$1.4 million in Year 6 funds. These funds had been committed to a project to clean-up trucks serving the Port of Oakland. This project ultimately was not completed due to implementation challenges. The Bay Area AQMD has redirected these Year 6 funds to another project and expects the funds to be fully expended by the end of 2006. ARB is scheduled to audit the Bay Area AQMD's implementation of the Carl Moyer Program in early 2007 to ensure all program funds are expended in accordance with state law and the program guidelines.

Applicants for Carl Moyer Program funds are solicited by the Bay Area AQMD through an RFP process. Projects are ranked and selected for funding based upon project cost-effectiveness, with at least fifty percent of projects located in environmental justice areas. In recent years, requests for project funding have exceeded funding availability.

Carl Moyer Program projects funded in the Bay Area AQMD have reduced NOx and diesel PM emissions by over 700 tons per year and almost 50 tons per year, respectively, with an average cost-effectiveness of about \$1,700 per ton of NOx reduced. Table A-5 summarizes the types of projects funded by the Carl Moyer Program in the Bay Area AQMD in Years 1 through 6.

Table A-5: Bay Area AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	-	-	3	201	-	-	40.0	0.26	\$657,802
Off-Road									
Scraper	-	-	2	7	7	-	45.3	2.19	\$877,560
Other	-	-	4	4	-	-	5.4	0.91	\$214,756
Ag Pump	-	-	-	1	4	-	2.4	0.13	\$55,008
Marine									
Ferry/ Excursion	4	8	11	2	2	-	252.3	9.37	\$3,624,073
Tug	12	1	28	3	5	1	233.5	26.09	\$4,754,808
Other	8	4	13	-	5	-	89.3	7.22	\$1,331,548
Locomotive	2	-	-	-	-	-	33.6	-	\$820,000
Totals	26	13	61	218	23	1	702	46	\$12,335,555

Table includes projects funded as of October 1, 2006. Table does not include \$1,438,428 in Year 6 funds which have not yet been expended. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Sacramento Metropolitan AQMD

The Sacramento Metropolitan AQMD has participated in the Carl Moyer Program since the program's inception and administers the Carl Moyer Program for all the air districts in the Sacramento Federal Ozone Non-Attainment Area which includes the Yolo-Solano AQMD, the El Dorado County AQMD, and the Placer County AQMD. In Years 1 through 6, ARB provided the Sacramento region with \$12,704,490 in Carl Moyer Program funds. The Sacramento Metropolitan AQMD has leveraged these state dollars with \$5,461,282 in local funds. The district received an additional \$8,657,252 in Years 7 and 8, which it matched with \$1,984,804 in local funds.

The Sacramento Metropolitan AQMD administers their Carl Moyer Program on a first-come, first-served basis. Over eight years of implementing the program, the district has developed strong relationships with local engine and vehicle dealers who provide outreach to engine owners. The district uses the internet to provide additional outreach and includes information on the Carl Moyer Program in its Clean Technology Forum newsletter (with a circulation of over 3,400). During the summer of 2006, ARB audited the Sacramento Metropolitan AQMD's implementation of the Carl Moyer Program in Years 5 through 8. ARB's audit report, available in Appendix D, provides more information regarding the district's implementation of the Carl Moyer Program.

The Sacramento Metropolitan AQMD used its Year 1 through 6 Carl Moyer Program funds to clean up over 1,000 engines. These projects include purchase of new, alternative-fueled school buses, on-road retrofit devices, agricultural pump and construction equipment engine repowers, and locomotive idle-limiting devices. These projects reduce NOx emissions by over 600 tons per year and diesel PM emissions by about 24 tons per year with an average cost-effectiveness of about \$4,300 per ton of NOx reduced. Table A-6 summarizes the types of Carl Moyer Program projects funded, emission reductions achieved, and funds expended in the Sacramento region.

Table A-6: Sacramento Metropolitan AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road									
School Bus	2	2	1	-	-	-	1.7	0.19	\$155,911
Urban Bus	-	-	-	-	14	-	4.6	0.13	\$587,791
Other	-	-	-	3	3	2	1.1	0.03	\$59,745
Off Road									
Ag Tractor	-	4	10	5	4	-	14.8	0.89	\$394,897
Scraper	-	1	7	3	2	8	34.5	2.09	\$1,305,449
Other	-	8	39	25	8	3	47.3	2.64	\$1,207,083
Ag Pump	206	160	318	51	90	62	512.6	17.74	\$8,678,779
Locomotive	-	-	-	21	-	-	1.0	0.05	\$299,985
Totals	208	175	375	108	121	75	618	24	\$12,689,640

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

San Diego County APCD

The San Diego County APCD has participated in the Carl Moyer Program since the program's inception. In its first six years of participation in the program, the district received \$6,246,716 in funding from ARB, which it matched with \$2,701,681 in district funds. In Years 7 and 8, the San Diego APCD received \$5,555,546 in program funding, which it matched with \$1,227,294 in local funds.

The San Diego County APCD solicits applications for Carl Moyer Program funding through an annual RFP, which is mailed to about 350 companies, government entities, and individuals. A notice of availability of program funding is also placed in a general circulation newspaper oriented towards the business community and a similar notice written in Spanish is placed in the region's largest Spanish language newspaper. Program information and application procedures are also available on the district's website. Applications are selected based upon project cost-effectiveness, with a minimum of fifty percent of funding dedicated to projects in environmental justice areas. The San Diego APCD Board approves projects before they are funded.

In Years 1 through 6, the San Diego APCD provided funding to clean up 260 engines, including the purchase of 125 buses and trash trucks, and replacement of on-road, off-road, agricultural irrigation pump, and marine engines. These projects achieve over 240 tons per year of NOx reductions and 10 tons per year of diesel PM reductions, with an average cost-effectiveness of about \$3,100 per ton of NOx reduced. Table A-7 summarizes Carl Moyer Program engines funded, emission reductions achieved, and funds expended in San Diego County.

Table A-7: San Diego County APCD Carl Moyer program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road									
Transit Bus	15	50	18	2	-	-	36.8	1.23	\$867,049
Other	8	9	23	-	-	-	17.0	1.53	\$1,089,471
Off-Road	-	-	10	10	9	2	52.5	2.11	\$1,158,748
Ag Pump	-	-	-	3	6	4	20.8	1.04	\$342,108
Marine									
Charter Fishing	20	-	16	6	3	-	80.4	1.09	\$1,661,796
Other	-	2	2	2	2	10	34.8	2.10	\$1,057,327
Locomotive	-	-	-	-	-	1	3.8	0.82	\$60,600
Totals	43	61	69	23	20	17	246	10	\$6,237,099

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

San Joaquin Valley Unified APCD

The San Joaquin Valley Unified APCD has participated in the Carl Moyer Program since the program's inception. The district administers the Carl Moyer Program within its jurisdiction, which includes the following counties: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the western portion of Kern. In Years 1 through 6, the San Joaquin Valley APCD received \$23,970,175 in funding from ARB, which it matched with \$11,527,796 in local funds. The district received \$14,651,071 in Carl Moyer Program funding in Years 7 and 8, for which it provided \$3,134,779 in match funding.

The San Joaquin Valley Unified APCD integrates their Carl Moyer Program implementation into a larger grant and incentive program called the Heavy-Duty Engine Program. This program provides incentives for the differential cost associated with the purchase of reduced emission technology as compared with the cost of conventional technology on a first-come, first-served basis. The program is typically oversubscribed, with more applications for funding than available funds.

Carl Moyer Program funds from Years 1 through 6 have helped fund over 1,700 cleaner engines, the majority of which are replacement engines for agricultural irrigation pumps. The San Joaquin Valley Unified APCD has also funded the purchase of 13 new alternative fueled on-road heavy-duty vehicles and the retrofit of 62 transit buses. Carl Moyer Program projects in the San Joaquin Valley achieve over 1,800 tons per year of NOx reductions and 80 tons per year of diesel PM reductions, with an average cost-effectiveness of about \$2,100 per ton of NOx reduced. Table A-8 summarizes the Carl Moyer Program engines funded, emission reductions achieved, and funds expended in the San Joaquin Valley.

Table A-8: San Joaquin Valley APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road									
Line-haul Truck	2	-	1	-	-	27	20.1	0.13	\$790,917
Transit Bus	-	-	-	-	62	-	4.0	-	\$930,000
Other	12	-	-	-	2	-	5.2	0.04	\$276,852
Off Road									
Ag Tractor	3	17	-	1	3	1	12.1	0.64	\$212,592
Other	3	1	2	2	-	2	7.3	0.25	\$122,048
Ag Pump	360	246	650	203	181	136	1,806.9	80.29	\$21,456,932
Totals	380	264	653	206	248	166	1,856	81	\$23,789,341

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

South Coast AQMD

The South Coast AQMD is California's largest local air district, responsible for air quality in portions of Los Angeles, Riverside, San Bernardino counties and all of Orange County. As the district with the largest population, the South Coast AQMD has been awarded over \$62 million in Carl Moyer Program funds over the program's first six years. The district leveraged these state dollars with over \$26 million in local match funding. In Years 7 and 8, the district received an additional \$46,385,305 in program funds from ARB, which it matched with \$10,846,534 in local funding.

The South Coast AQMD has historically solicited project applications through an RFP process that allows for evaluation of applications for cost-effectiveness and environmental justice impacts. After the projects are ranked, the Technical Committee must approve the selections before they are presented to the district Board for final approval. In 2006, the South Coast AQMD released three RFPs. The first encompassed the traditional review process described above. The other two RFPs were first-come, first-serve solicitations for on-road heavy-duty vehicle fleet modernization and for construction equipment. In early 2007, the district plans on releasing another RFP following its traditional process. Requests for program funding in the district typically far exceed available funds.

During the summer of 2006, ARB audited the district's implementation of the Carl Moyer Program for Years 5 through 8. The audit found that approximately \$10 million of the \$15.6 million of Year 5 and 6 funds received by the district have not been expended in a timely manner consistent with State law. ARB will conduct a follow-up audit in 2007 to verify that these funds are expended. ARB's audit report, available in Appendix E, provides more information on the district's implementation of the Carl Moyer Program.

Table A-9 summarizes projects funded by the South Coast AQMD as of October 1, 2006. These projects have helped clean up over 1,600 engines with an average cost-effectiveness of about \$2,700 per ton of NOx reduced.

Table A-9: South Coast AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road									
Refuse Hauler	44	30	223	89	3	-	319.7	5.84	\$10,689,164
Transit Bus	111	128	301	136	105	-	492.1	17.16	\$10,197,619
Other	24	2	47	10	34	-	67.7	0.72	\$2,111,054
Off Road									
Forklift	67	-	36	1	-	14	109.9	0.33	\$1,039,603
Scraper	-	-	-	37	53	19	465.0	22.71	\$7,238,410
Other	10	-	-	8	8	21	100.4	5.58	\$2,060,184
Marine	6	23		46	36		374.9	14.45	\$8,251,149
Locomotive	-	-	-	-	2	-	39.3	1.60	\$1,175,000
Totals	262	183	607	327	241	54	1969	68	\$42,762,183

Table does not include benefits of \$19,261,339 in projects not complete as of October 1, 2006. Once complete, these projects are projected to reduce NO and PM by an additional 800 and 30 tons per year, respectively.

Amador County APCD

The Amador County APCD participated in the Carl Moyer Program in Year 5 and 6, receiving \$100,000 in funding each year. The Amador County APCD spent \$33,990 of the \$100,000 it received in Year 5 and is returning the remaining \$66,010. These funds shall revert to the State of California General Fund. The district also returned the \$100,000 in Year 6 funds to ARB for redistribution to the Monterey Bay Unified APCD, the Sacramento Metropolitan AQMD, and the Santa Barbara County APCD. The district elected not to participate in the program in Years 7 and 8 because of difficulty finding eligible projects and a shortage of resources needed to administer the program.

The Amador County APCD accepted applications on a first-come, first-served basis. The district's outreach efforts included newspaper and radio advertisements, television interviews, and phone calls to prospective participants. A one-time district Board resolution provides the district's Air Pollution Control Officer the authority to select Carl Moyer Program projects.

As of October 1, 2006, the Amador County APCD has provided approximately 33 percent of its Year 5 funds to repower a large off-road loader. This project provides about one ton per year of NO_x reductions and about one-tenth of a ton per year of diesel PM reductions, with a cost-effectiveness of about \$5,900 per ton of NO_x reduced. Table A-10 summarizes information for this project.

Table A-10: Amador County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NO _x Reductions (tpy)	PM Reductions (tpy)	Funds Total
Off-Road Equipment	-	-	-	-	1	-	1.3	0.12	\$33,990
Total	-	-	-	-	1	-	1.3	0.12	\$33,990

Table includes projects funded as of October 1, 2006. Reflects projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Antelope Valley AQMD

The Antelope Valley AQMD has participated in the Carl Moyer Program since the program's inception. In Years 1 through 6, the district received a total of \$1,740,302, which it matched with \$767,600 in district funding. For the seventh and eighth years of the program, the district received an additional \$800,415, which it matched with \$208,307 in district funding. As of October 1, 2006, the Antelope Valley AQMD has committed all of its Year 1 through 7 funds and about a third of Year 8 funds to specific projects.

The Antelope Valley AQMD awards Carl Moyer Program funding to eligible projects on a first-come, first-served basis each year when program funds are received from ARB. In the event that available funding exceeds project funding requests, an RFP is released to solicit additional applications. If the applications received in this period exceed available funds, the projects are evaluated by the district's Mobile Source Reduction Committee. The projects recommended for funding by the committee are forwarded to the Governing Board for approval. Any remaining, eligible applications which had not been awarded funding by the Governing Board are forwarded to the next Carl Moyer Program funding round. District outreach efforts include participation in the Antelope Valley Clean Cities Coalition, presentations to the Los Angeles County Farm Bureau, articles in the district's newsletter, and meetings with fleet managers from city, county, and state agencies. In recent years, demand for Carl Moyer Program funding has exceeded available funds.

The Antelope Valley AQMD Carl Moyer Program has funded 50 engines that operate in the district, including alternative-fueled on-road heavy-duty vehicles, and repowers of off-road equipment and agricultural irrigation pumps. Carl Moyer Program projects in the district provide approximately 178 tons per year of NOx and 10 tons per year of diesel PM reductions. Overall, the average cost-effectiveness for the district's program is about \$1,500 per ton of NOx reduced. Table A-11 summarizes the Carl Moyer Program projects funded, emission reductions achieved, and funds expended in the Antelope Valley.

Table A-11: Antelope Valley AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road									
Refuse Hauler	7	5	-	1	-	-	7.8	-	\$472,502
Other	-	1	3	-	-	-	3.5	0.02	\$161,560
Off-Road	-	-	3	-	-	-	3.9	0.54	\$114,472
Ag Pump	1	1	6	5	6	11	162.8	9.81	\$991,768
Totals	8	7	12	6	6	11	178	10	\$1,740,302

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Butte County AQMD

The Butte County AQMD has participated in the Carl Moyer Program since the program's second year. Between Years 2 and 6, the district received a total of \$529,592 in Carl Moyer Program funds. The district provided \$124,516 in district match funds in Years 2, 3, and 4 and received a waiver from the match funding requirement in program Years 5 and 6. The district received an additional \$400,000 in Years 7 and 8 and received a match funding waiver. As of October 2006, the district has committed all its Year 7 and almost all Year 8 Carl Moyer Program funds to specific projects.

The Butte County AQMD solicits applications for Carl Moyer Program funding through an annual RFP process. The district notifies potential applicants of funding availability through the district's quarterly newsletter "The Stratus Status", posting information and application materials on the district's website, newspaper advertising, and a direct mailing to a list of district permit recipients and past Carl Moyer Program participants. The district generally receives applications for funding in excess of available funds.

The Butte County AQMD has used its Carl Moyer Program funds from Years 2 through 6 to fund about 60 cleaner engines, achieving 43 tons per year of NOx reductions and 2.5 tons per year of diesel PM reductions. These projects have an average cost-effectiveness of about \$2,200 per ton NOx reduced. The majority of program funds have been used for agricultural irrigation pump engine replacement. Table A-12 summarizes the types of engines, emission reductions achieved, and total funding for the Carl Moyer Program in Butte County.

Table A-12: Butte County AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	-	-	1	-	-	-	0.2	0.01	\$5,244
Off-Road									
Ag Tractor	-	-	1	-	-	-	0.1	0.01	\$3,308
Sprayer	-	-	1	-	-	-	0.2	0.00	\$6,470
Other	-	-	1	-	-	-	1.4	0.05	\$18,225
Ag Pump	-	6	16	10	10	12	41.1	2.44	\$495,046
Totals	-	6	20	10	10	12	43	2.5	\$528,293

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Calaveras County APCD

The Calaveras County APCD has participated in the Carl Moyer Program in Years 5 and 6, receiving \$100,000 in Carl Moyer Program funds each year from ARB. The district also received \$200,000 in program funding in Year 8. Having received the minimum program allocation since Year 5, the district has been exempted from providing match funding each year.

In Year 5, the Calaveras County APCD funded two school bus engine repowers for a total of \$100,000. The school bus projects exceeded the maximum cost-effectiveness cap and also did not achieve the minimum 15 percent NO_x emission reductions required for repower projects. As a result, the district is being placed on probation for a minimum period of one year. In order to be fully reinstated into the program, the district must demonstrate to ARB that they can fully implement project eligibility criteria. ARB is working with the district to develop strategies that will satisfy this requirement.

The Calaveras County APCD accepts applications for project funding on a first-come, first-served basis. The district's outreach efforts include newspaper advertisements, industry meetings, and phone calls to prospective project applicants. A one-time board resolution allows the district's Air Pollution Control Officer to select projects and contract with engine owners and operators. Board approval is not necessary for each individual project.

The Calaveras County APCD has provided Carl Moyer Program incentive funds to retrofit one scraper and to repower one scraper and two school buses. These projects provide over six tons per year of NO_x reductions and 0.2 tons per year of diesel PM reductions, with an average cost-effectiveness of \$7,100 per ton of NO_x reduced. Table A-13 summarizes the Carl Moyer Program projects funded, emission reductions achieved, and funds expended in Calaveras County.

Table A-13: Calaveras County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NO _x Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	-	-	-	-	2	-	0.3	-	\$100,000
Off-Road	-	-	-	-	1	1	6.0	0.23	\$105,000
Totals	-	-	-	-	3	1	6.3	0.23	\$205,000

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Colusa County APCD

The Colusa County APCD has participated in the Carl Moyer Program since the program's fourth year. In Carl Moyer Program Years 4 through 6, the district received \$275,000 in funding from ARB, which it has matched with \$37,500 in local funds. For Years 7 and 8 of the program, the district received an additional \$400,000 in Carl Moyer Program funding. Having accepted the minimum program allocation in Years 7 and 8, the district was not required to provide match funding.

The Colusa County APCD administers their Carl Moyer Program on a first-come, first-served basis. The district places newspaper ads announcing availability of new funds. The district also shares office space with the Agricultural Commissioner's office, making it convenient to provide outreach materials to potential project applicants in the agricultural community. The Colusa County APCD has received requests for funding in excess of available funds every year it has participated in the Carl Moyer Program.

Colusa County APCD Carl Moyer Program funds have helped replace 33 older agricultural pump diesel engines with 32 new diesel engines and one electric motor. These projects achieve about 40 tons per year NOx reductions and 2 tons per year of diesel PM reductions, with an average cost-effectiveness of about \$1,100 per ton of NOx reduced. Table A-14 summarizes the Carl Moyer Program engines funded, emission reductions achieved, and funds expended in Colusa County.

Table A-14: Colusa County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
Ag Pump	-	-	-	11	11	11	40.1	1.88	\$269,836
Total	-	-	-	11	11	11	40	2	\$269,836

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Feather River AQMD

The Feather River AQMD has participated in the Carl Moyer Program since the program's second year. Between Years 2 and 6, the district received \$520,851 in Carl Moyer Program funds and provided \$120,145 in local match funding. The Feather River AQMD received an additional \$200,000 in Carl Moyer Program funding from ARB in both Years 7 and 8. The district was exempted from providing match funding both these years since it received the minimum program allocation.

The Feather River AQMD solicits project applications through an RFP. Eligible projects are selected for funding based upon the affected population, pollutant health impacts, emission reductions, and cost-effectiveness. When Carl Moyer Program funding becomes available to the district, the district holds a workshop to educate potential applicants about the program and assist them in filling out the required application paperwork. The workshop is advertised in the local newspaper and posted on the district web site. The Feather River AQMD has received requests for funding in excess of available funds during every year it has participated in the Carl Moyer Program.

In Years 2 through 6, the Feather River AQMD used the bulk of its Carl Moyer Program funding to clean up 52 diesel agricultural irrigation pump engines and other agricultural off-road equipment. Projects funded by the Feather River AQMD reduce NO_x emissions by about 53 tons per year and diesel PM emissions by about 1.4 tons per year with an average cost-effectiveness of about \$1,800 per ton of NO_x. Table A-15 lists the Carl Moyer Program projects funded, emission reductions achieved, and funds expended in the Feather River AQMD.

Table A-15: Feather River AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NO _x Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	-	-	1	-	-	-	0.5	-	\$11,063
Off-Road									
Ag Tractor	-	1	-	-	-	-	1.7	-	\$7,855
Other Ag Equipment	-	2	4	-	-	-	3.1	-	\$36,637
Other	-	-	4	-	-	-	0.8	-	\$14,576
Ag Pump	-	6	18	9	10	9	46.9	0.63	\$447,763
Totals	-	9	27	9	10	9	53	1	\$517,894

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Glenn County APCD

The Glenn County APCD has participated in the Carl Moyer Program since the program's inception. In Years 1 through 6, the district received a total of \$523,743 in Carl Moyer Program funding. The district matched this with \$155,187 in local funds in Years 1 through 4, and received a waiver from the matching fund requirement in Years 5 and 6. The district returned \$55,000 of their Year 4 funds to ARB. These funds were redistributed to the Tehama County APCD. For Years 7 and 8, the Glenn County APCD received an additional \$400,000 and was exempted from providing program match funding. As of October 2006, the district has committed all its Year 7 and 8 Carl Moyer Program funds to specific projects.

The Glenn County APCD solicits applications for Carl Moyer Program funding through an annual RFP process. The district mails its RFP notice and application to interested parties identified by a sign-up sheet in the district office. The district shares office space with the Agricultural Commissioner's office, which makes it convenient to provide outreach materials to potential project applicants in the agricultural community. The district also provides applications to local engine dealers and occasionally places newspaper ads announcing availability of funds. The Glenn County APCD has received requests for funding in excess of available funds every year it has participated in the Carl Moyer Program.

The Glenn County APCD has directed nearly all its Year 1 through 6 Carl Moyer Program funds to repower agricultural irrigation engine pumps. The district provided funding to repower 81 engines, reducing NOx emissions and diesel PM emissions by about 74 and 3 tons per year, respectively. The average cost-effectiveness of these projects was about \$1,300 per ton of NOx reduced. Table A-16 summarizes the Carl Moyer Program engines funded, emission reductions achieved, and funds expended in Glenn County.

Table A-16: Glenn County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road					1		0.11	0.01	\$5,246
Ag Pump	14	9	23	6	15	13	73.7	3.20	\$531,457
Totals	14	9	23	6	16	13	74	3	\$536,703

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Imperial County APCD

The Imperial County APCD has participated in Carl Moyer Program since the program's inception. Over the first six years of the program, the district received a total of \$656,543, which it matched with \$187,991 in local funding. In Years 7 and 8, the district received an additional \$625,824 in funding from ARB, which it matched with \$170,145 in local funds. To date, the district has committed all of its Year 7 allocation to specific projects.

The Imperial County APCD accepts applications on a first-come, first-served basis and evaluates and ranks projects based on cost-effectiveness. The district distributes applications through the Agricultural Commissioner's Office, the Farm Bureau, and through a direct mailing and distribution effort. The types of industries notified include agricultural irrigation pump operators, hay processors, farmers, firms with agricultural and earthmoving equipment, off-road equipment operators, and trucking companies. The Imperial County APCD generally receives requests for Carl Moyer Program funding in excess of available funds. For example, the district received 25 applications requesting a total funding of \$400,000 for its Year 7 allocation of about \$241,000.

The Imperial County APCD uses Carl Moyer Program incentive funds to pay primarily for agricultural irrigation pump engine repowers. In the first six years of the program, the district has funded 53 agricultural irrigation pump engine repowers and parts of three off-road engine repowers (for a total of 1.4 off-road engines funded). Imperial County APCD Carl Moyer Program projects achieve about 55 tons per year of NOx reductions and two tons per year of PM reductions. Overall, the average cost-effectiveness for the district's program is about \$1,500 per ton of NOx reduced. Table A-17 summarizes the Carl Moyer Program engines funded, emission reductions achieved, and funds expended in Imperial County.

Table A-17: Imperial County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
Off-Road	-	-	1	-	-	-	1.1	0.07	\$18,723
Ag Pump	13	7	13	5	8	7	54.1	2.12	\$637,820
Totals	13	7	14	5	8	7	55	2	\$656,543

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Kern County APCD

The Kern County APCD participated in the Carl Moyer Program in Years 2, 3, 5 and 6. In Years 2, 5 and 6, the Kern County APCD received \$300,000 in Carl Moyer Program funds, and provided \$50,000 in local match funding. In Years 2 and 3, the district was allocated \$225,000 and \$325,000, respectively, from ARB. The district returned \$125,000 of their Year 2 funds and all of their Year 3 funds to ARB to fund multi-district projects. The Kern County APCD received \$100,000 in Carl Moyer program funds from ARB in both Year 5 and Year 6 and has requested only about \$120,000 of the \$200,000 that it was allocated for Year 7. The district has been allocated an additional \$200,000 in program funding for Year 8.

The Kern County APCD administers their Carl Moyer Program on a first-come, first-served basis. The district provides outreach materials to potential project applicants in the agricultural community and advertises in local newspapers when program funds are available. The Kern County APCD has received requests for funding in excess of available funds every year it has participated in the Carl Moyer Program.

The Kern County APCD primarily funds agricultural irrigation pump engine repower projects with its Carl Moyer Program funds. In Years 2 through 6, the district funded the replacement of 14 older diesel agricultural pump engines with 11 new diesel engines and 3 electric motors, and three truck retrofit projects. These projects reduce NOx emissions by about 49 tons per year and diesel PM emissions by about 3 tons per year with an average cost-effectiveness of about \$1,200 per ton of NOx reduced. Table A-18 summarizes the Carl Moyer Program engines funded, emission reductions achieved, and funds expended in Kern County.

Table A-18: Kern County APCD Carl Moyer Program Project Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	-	-	-	-	-	3	0.3	0.34	\$38,473
Ag Pump	-	8	-	-	5	1	49.2	2.26	\$261,527
Totals	-	8	-	-	5	4	49	3	\$300,000

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Lake County APCD

The Lake County APCD participated in the Carl Moyer Program during the program's fifth and sixth years. In these two years, the district received \$200,000 in total program funding from ARB. Because it received the minimum program allocation, the district was not required to provide match funding. As of October 2006, the Lake County APCD has expended all but \$7,659 of its Year 5 and 6 funds. These unspent monies have been returned to the State of California General Fund. Due to difficulties in soliciting projects, the district has declined Year 7 and 8 funds.

In Years 5 and 6, the Lake County APCD solicited applications for program funding through an RFP process open to public agencies. Since few applications were received, project ranking was unnecessary and the district funded all public agency project applications that met program requirements.

The Lake County APCD has provided Carl Moyer Program incentive funds to repower six on-road medium-duty vehicles and two pieces of construction equipment that operate in the district. These projects reduce NOx emissions by about 7 tons per year, with a cost-effectiveness of about \$5,800 per ton of NOx reduced. Table A-19 summarizes the Carl Moyer Program engines funded, emission reductions achieved, and funds expended in Lake County.

Table A-19: Lake County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	-	-	-	-	2	4	4.8	-	\$128,446
Off-Road	-	-	-	-	2	-	2.3	-	\$64,990
Totals	-	-	-	-	4	4	7	-	\$193,436

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Lassen County APCD

The Lassen County APCD has participated in the Carl Moyer Program since the program's fifth year. In Years 5 and 6, the district received \$200,000 in total program funding from ARB. The district received an additional \$400,000 in total funding for Years 7 and 8. Because it received the minimum program allocation each year, the district has been exempt from providing match funding.

The Lassen County APCD accepts applications for funding on a first-come, first-served basis unless the number of applications exceeds the available funding, in which case, the projects achieving the most NOx emission reductions are funded. The district outreach efforts include publishing a public notice of availability of Carl Moyer Program funds in the Lassen County Times, the Modoc Record, the Redding Searchlight News, and the Burney Pines Press. The district also publicizes availability of program funding on local radio stations.

The Lassen County APCD expended their Carl Moyer Program funds on agricultural irrigation pump engine repower projects in Years 5 and 6. These projects achieve about 18 tons per year of NOx reductions with a cost-effectiveness of \$1,900 per ton of NOx reduced. Table A-20 summarizes the Carl Moyer Program projects funded, emission reductions achieved, and funds expended in Lassen County.

Table A-20: Lassen County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
Ag Pump	-	-	-	-	9	12	17.6	-	\$201,136
Totals	-	-	-	-	9	12	18	-	\$201,136

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Mariposa County APCD

The Mariposa County APCD participated in the Carl Moyer Program in Years 5 and 6, receiving \$100,000 of funding each year from ARB. As of October 1, 2006, the district has expended \$5,511 of its Year 5 program funding. The Mariposa County APCD is returning the remaining \$94,489 from Year 5 funds, which will revert to the State of California General Fund. The district also returned all of its Year 6 funds to ARB for redistribution to the Monterey Bay Unified APCD, the Sacramento Metropolitan AQMD, and the Santa Barbara County APCD. The district has elected not to participate in the Carl Moyer Program in Years 7 and 8.

The Mariposa County APCD accepted applications for Carl Moyer Program funding on a first-come, first-served basis. While the district contacted prospective applicants directly to find projects, very few eligible project applications were received. A one-time board resolution allowed the district's Air Pollution Control Officer to select projects and enter into contracts with engine owners.

In Year 5, the Mariposa County APCD provided \$5,511 for an on-road heavy-duty vehicle repower project. This project achieves about 0.07 tons per year of NOx reductions and 0.01 tons per year of diesel PM reductions, with a cost-effectiveness of about \$13,000 per ton of NOx reduced. Table A-21 provides summary information for this project.

Table A-21: Mariposa County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	-	-	-	-	1	-	0.07	0.01	\$5,511
Totals	-	-	-	-	1	-	0.07	0.01	\$5,511

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Mendocino County AQMD

The Mendocino County AQMD has been participating in the Carl Moyer Program since the program's second year. The district received \$487,018 in Carl Moyer Program funding in Years 2 through 6, which it matched with \$109,326 in local funding in Years 2 through 4. In Year 5, the Mendocino County AQMD was granted a waiver of the match requirement and has retained the waiver since. Mendocino received \$400,000 from ARB for the Carl Moyer Program in Years 7 and 8.

The Mendocino County AQMD solicits applications for Carl Moyer Program funding through an RFP process. The district's RFP for Year 8 projects closed in November 2006 and district staff expects to take proposed Year 8 projects to its Board for approval in May 2007. The district has typically had more project applications than they could fund. Outreach for the district includes a mailing list of interested parties, mailings sent to district permit holders, press releases to local newspapers, and notification in the local Farm Bureau news letter.

The Mendocino County AQMD has provided Carl Moyer Program incentive funds to help retrofit three heavy-duty trucks, purchase one new alternative-fueled street sweeper, and repower 26 on-road, off-road, agricultural irrigation pump, and marine engines. These projects achieve about 20 tons per year of NOx reductions with an average cost-effectiveness of \$3,500 per ton of NOx reduced. Table A-22 summarizes the Carl Moyer Program projects funded, emission reductions achieved and funds expended in Mendocino County.

Table A-22: Mendocino County AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road									
Line-Haul Truck	-	-	2	1	-	3	4.8	-	\$92,868
Other	-	4	-	-	7	2	7.8	-	\$220,293
Off-Road	-	1	-	-	-	-	0.7	-	\$10,000
Ag Pump	-	1	3	3	-	-	4.2	-	\$80,124
Marine	-	2	-	1	-	-	2.1	-	\$79,083
Totals	-	8	5	5	7	5	20	-	\$482,368

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Modoc County APCD

The Modoc County APCD received \$100,000 in Carl Moyer Program funds from ARB in the program's fifth and six years. In addition, Modoc received an extra \$100,000 in funds redistributed from the Siskiyou County APCD. The district elected not to participate in the Carl Moyer Program in Year 7 and received \$200,000 in program funding in Year 8.

The Modoc County APCD accepts applications on a first-come, first-served basis. The district's outreach efforts include newspaper advertisements and phone calls to prospective participants. A one-time board resolution allows the district's Air Pollution Control Officer to select projects and enter into contract with program participants. Board approval is not necessary for each individual project.

The Modoc County APCD has provided Carl Moyer Program incentive funds to replace 12 on-road, off-road, and agricultural irrigation pump engines with newer, cleaner engines. These projects reduce NOx emissions by about eight tons per year and diesel PM emissions by about 0.4 tons per year, with an average cost-effectiveness of about \$5,500 per ton of NOx reduced. Table A-23 summarizes the Carl Moyer Program projects funded, emission reductions achieved, and funds expended in Modoc County.

Table A-23: Modoc County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	-	-	-	-	5	-	0.9	0.09	\$100,000
Off-Road	-	-	-	-	-	6	6.0	0.27	\$170,225
Ag Pump	-	-	-	-	-	1	0.8	0.04	\$29,775
Totals	-	-	-	-	5	7	8	0.40	\$300,000

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Mojave Desert AQMD

The Mojave Desert AQMD has participated in Carl Moyer Program since the program's inception, with the exception of the program's fourth year. The district received \$3,216,999 in state funding through Year 6, which it matched with \$1,158,566 in district funds. In Year 7 and 8, the Mojave Desert AQMD received an additional \$922,955 in Carl Moyer Program funding, which it matched with \$113,458 in district funds. The district has committed all of its Year 7 and Year 8 funds to specific projects.

The Mojave Desert AQMD awards Carl Moyer Program funding to eligible projects on a first-come, first-served basis each year when program funds are received from ARB. In the event that available funding exceeds project funding requests, an RFP is released to solicit additional funding applications. If the applications received in this period exceed available funds, the projects are evaluated by the district's Mobile Source Reduction Committee. The committee's recommendations are forwarded to the Governing Board for approval. The Mojave Desert AQMD then forwards to the next Carl Moyer Program round any remaining, eligible applications which were not awarded funding by the Governing Board. In addition to issuing the RFP, the district conducts outreach to publicize the program by working with the San Bernardino County Farm Bureau, publishing articles in the district's newsletter, and meeting with fleet managers from city, county, and state agencies. The Mojave Desert AQMD also plans to establish a Clean Cities Coalition to assist in promoting the district's Carl Moyer Program. In recent years, demand for Carl Moyer Program funding has exceeded available funds.

The Mojave Desert AQMD has provided Carl Moyer Program incentive funds to clean up 62 on-road, off-road, and agricultural irrigation pump engines, including purchase of new alternative fueled on-road vehicles, on-road engine repowers, and off-road equipment and agricultural irrigation pumps engine repowers. These projects will achieve about 187 tons per year of NOx reductions and 13 tons per year of diesel PM reductions, with a cost-effectiveness of about \$4,100 per ton of NOx reduced. Table A-24 provides a summary of Carl Moyer Program projects funded, emission reductions achieved, and funds expended in the Mojave Desert AQMD.

Table A-24: Mojave Desert AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	12	5	1	-	-	-	10.0	0.65	\$433,004
Off-Road									
Off-Hwy Truck	1	5	4	-	1	1	62.1	5.03	\$1,131,977
Other	1	5	14	-	-	-	59.9	3.78	\$1,202,357
Ag Pump	9	1	2	-	-	-	54.8	3.52	\$449,661
Totals	23	16	21	-	1	1	187	13	\$3,216,999

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Monterey Bay Unified APCD

The Monterey Bay Unified APCD has participated in the Carl Moyer Program since the program's inception. The district received \$1,777,636 in program funding in Years 1 through 6, which it matched with \$716,925 in local funding. In Years 7 and 8, the Monterey Bay Unified APCD received \$1,636,699 in program funding and provided \$383,762 in local match funding.

Carl Moyer Program applications are solicited by the district on a continuous first-come, first-served basis. The district has a long wait list of project applications, primarily to repower agricultural irrigation pump engines, off-road equipment and commercial marine vessels. The maximum allowable cost-effectiveness of projects funded by the Monterey Bay Unified APCD is \$8,000 per weighted ton (compared to the maximum allowable Carl Moyer Program cost-effectiveness of \$14,300 per weighted ton). Grants are awarded in order of application, with consideration of per-county funding limits and environmental justice issues.

The Monterey Bay Unified APCD used its Year 1 through 6 Carl Moyer Program funds to clean up 90 on-road, off-road, agricultural irrigation pump, and marine vessel engines. These projects achieve about 62 tons per year of NOx reductions and three tons per year of diesel PM reductions, with an average cost-effectiveness of about \$3,900 per ton of NOx reduced. Table A-25 summarizes the Carl Moyer Program projects funded, emission reductions achieved, and funds expended in the Monterey Bay Unified APCD.

Table A-25: Monterey Bay Unified APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	8	-	-	-	-	-	3.0	-	\$265,800
Off-Road	-	-	2	1	10	3	10.7	0.50	\$256,676
Ag Pump	-	-	3	15	13	9	28.9	1.72	\$527,757
Marine									
Commercial Fishing	-	5	10	-	-	1	7.2	0.42	\$353,253
Other	-	-	5	-	1	4	12.4	0.70	\$393,298
Totals	8	5	20	16	24	17	62	3.3	\$1,796,784

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

North Coast Unified AQMD

The North Coast Unified AQMD has participated in the Carl Moyer Program since the program's inception. In Years 1 through 6, the district received a total of \$625,005, which it matched with \$172,222 in district funds in Years 1 through 4. The district has received the minimum program allocation and therefore has been exempted from providing match funding since Year 4. In Years 7 and 8, the district received \$400,000 in Carl Moyer Program funding from ARB.

The district accepts applications on a first-come, first-served basis. The district may place an emphasis on funding certain project categories in any given year to maintain a diversity of projects. To notify applicants of funding availability, the district works with local engine dealers, advertises in local newspapers and maintains a mailing list of potential applicants. The North Coast Unified AQMD has typically been slightly oversubscribed, and expects that the requests for funding will continue to increase as their outreach becomes more comprehensive.

The North Coast Unified APCD has provided Carl Moyer Program incentive funds to help clean up 30 on-road, off-road, and marine engines. These projects reduce NOx emissions by about 31 tons per year, with an average cost-effectiveness of about \$3,200 per ton of NOx reduced. Table A-26 provides a summary of Carl Moyer Program projects funded, emission reductions achieved, and funds expended in the North Coast Unified APCD.

Table A-26: North Coast Unified AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	3	2	6	2	5	4	14.8	-	\$451,765
Off-Road	1	-	2	1	-	1	6.8	-	\$102,706
Marine	1	1	-	1	-	-	9.2	-	\$70,534
Totals	5	3	8	4	5	5	31	-	\$625,005

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Northern Sierra AQMD

The Northern Sierra AQMD has participated in the Carl Moyer Program in the program's first seven years. The district received \$632,142 in funding in Years 1 through 6, and provided \$175,791 in local matching funds in Years 1 through 4. The district received the minimum program allocation in Years 5 and 6 and was therefore not required to provide match funding. In Year 7, the district received \$227,940 in program funding, which it matched with \$103,798 in local funds. About \$15,000 in Year 6 project funding remains and will be combined with funds for projects in Year 7. The Northern Sierra AQMD did not participate in the Carl Moyer Program in Year 8.

The Northern Sierra AQMD accepts project applications on a first-come, first-served basis. The district's outreach efforts include news releases, mailings, and radio advertisements. A one-time board resolution delegates the authority to select projects and enter into contracts with program participants to the district's Air Pollution Control Officer.

The Northern Sierra AQMD has provided Carl Moyer Program funding to repower 29 on-road and off-road engines, and purchase two alternative-fueled transit buses. These projects achieve about 22 tons per year of NOx reductions and 0.7 tons per year of diesel PM reductions, with a cost-effectiveness of about \$5,200 per ton of NOx reduced. Table A-27 summarizes the Carl Moyer Program projects funded, emission reductions achieved, and funds expended in the Northern Sierra AQMD.

Table A-27: Northern Sierra AQMD Carl Moyer Program Project Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	7	5	6	2	2	1	18.8	.27	\$509,175
Off-Road									
Rubber-Tired Loader	2	-	-	2	-	2	2.1	0.25	\$89,682
Other	-	-	-	2	1	-	1.0	0.20	\$80,676
Totals	9	5	6	6	3	2	22	0.7	\$679,533

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Northern Sonoma County APCD

The Northern Sonoma County APCD has participated in the Carl Moyer Program since the program's inception, with the exception of the program's second year. In Years 1 through 6, the district received \$538,900 in Carl Moyer Program funding, which it matched with \$135,266 in local funds. In Years 5 and 6, the district was granted a waiver from the match funding requirement. The district received \$463,161 in Carl Moyer Program funding in Years 7 and 8, for which it provided \$135,800 in match funding.

The Northern Sonoma County APCD solicits applications for Carl Moyer Program funding through an RFP process targeting agricultural engines, on-road vehicles, off-road equipment, and marine vessels. In the eighth year of the program, the district issued an RFP in May of 2006, took recommended projects to the district Board for approval in July of 2006 and signed contracts with grantees in August of 2006.

The district has funded 42 cleaner-engines, including 6 marine engine repowers and purchase of 36 new alternative-fueled on-road vehicles. These projects achieve about 19 tons per year of NOx reductions, with an average cost-effectiveness of about \$3,100 per ton of NOx reduced. Table A-28 summarizes the types of Carl Moyer Program projects funded, emission reductions achieved, and funds expended in Northern Sonoma County.

Table A-28: Northern Sonoma County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road									
School Bus	-	-	7	2	-	-	2.2	-	\$99,994
Transit Bus	-	-	8	-	-	-	2.5	-	\$50,000
Urban Bus	7	-	-	-	5	7	6.5	-	\$266,660
Marine	2	-	2	-	-	2	7.5	-	\$110,000
Totals	9	-	17	2	5	9	19	-	\$526,654

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

San Luis Obispo County APCD

The San Luis Obispo County APCD has participated in the Carl Moyer Program since the program's inception. In Years 1 through 6, the district received a total of \$692,746 in program funding from ARB, which it matched with \$206,093 in district funds. In Years 7 and 8, the district received \$671,605 and matched it with \$180,694 in local funds.

In the first year of the program, the San Luis Obispo APCD allocated all of its Carl Moyer Program funds to replace the Hearst Castle Historic Monument fleet of diesel buses with alternative fueled buses. In the following years, the district issued an annual RFP to solicit projects. Instead of a deadline, the district provides applicants with a limited time frame (typically up to two months) to submit applications for their projects. During that period, the district funds qualifying projects in the order they are received. Over the years implementing the Carl Moyer Program, the district has built a mailing list of about 200 previous and potential applicants and repower specialists. The San Luis Obispo APCD uses this mailing list, website postings, and workshop presentations to conduct outreach to potential program applicants.

In the first six years of the Carl Moyer Program, the San Luis Obispo APCD has provided Carl Moyer Program incentive funds to help clean up 40 engines that operate in the district. Besides the alternative-fueled buses funded in the first year, the district has also funded repowers of marine vessels, agricultural irrigation pumps, on-road vehicles, and off-road equipment. These projects achieve about 29 tons per year of NOx reductions and two tons per year of PM reductions, with an average cost-effectiveness of about \$3,300 per ton of NOx reduced. Table A-29 provides a summary of Carl Moyer Program projects funded, emission reductions achieved, and funds expended in San Luis Obispo County.

Table A-29: San Luis Obispo County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	15	-	-	2	-	1	4.6	0.22	\$239,697
Off-Road	-	-	-	1	-	1	0.6	0.02	\$20,157
Ag Pump	-	2	-	4	1	4	12.8	0.52	\$132,173
Marine	-	4	3	-	2	-	11.1	0.78	\$298,922
Totals	15	6	3	7	3	6	29	2	\$690,949

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Santa Barbara County APCD

The Santa Barbara County APCD has participated in the Carl Moyer Program since the program's inception. For Years 1 through 6, the district received \$1,646,621 from ARB, which it matched with \$720,760 in district funds. In Years 7 and 8, the district received \$1,050,953 in program funding and provided \$261,956 in local matching funds.

Each year, the Santa Barbara County APCD issues an RFP or uses other outreach efforts to solicit applications. Projects are generally funded on a first-come, first-served basis. However, additional criteria may be considered in selecting projects, including project mix, viability, and timeliness, the applicant's performance history, and to a limited extent, project cost-effectiveness. Additional outreach efforts include notifications sent to mailing lists, announcements in local newspapers and contractor association newsletters, press releases, RFP notice postings, and provision of flyers and information at various events. The Air Pollution Control Officer has the authority to approve individual project grants that are \$150,000 or less. Projects grants for more than \$150,000 must receive district Board approval. Requests for project funding in the district have typically exceeded available Carl Moyer Program funds.

In Years 1 through 6, the Santa Barbara County APCD provided Carl Moyer Program incentive funds to help repower over 60 engines, including engines on on-road heavy-duty vehicles, off-road equipment, agricultural irrigation pumps, and marine vessels. Additionally, reallocated Year 6 funds provided to the district during the Year 7 funding cycle were used to scrap 27 light-duty vehicles. Projects funded by the Santa Barbara County APCD achieve about 69 tons per year of NOx reductions and 6 tons per year of diesel PM emission reductions, with an average cost-effectiveness of about \$3,700 per ton of NOx reduced. Table A-30 summarizes Carl Moyer Program projects funded, emission reductions achieved, and funds expended in Santa Barbara County.

Table A-30: Santa Barbara County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road									
Line-Haul Truck	-	-	2	5	1	-	4.0	0.32	\$180,793
Refuse Hauler	-	-	3	-	4	-	9.7	0.70	\$109,462
Transit Bus	3	1	-	-	-	-	1.5	-	\$190,567
Car Scrap	-	-	-	-	-	27	0.6	-	\$22,634
Off-Road	-	-	-	-	2	3	6.9	0.41	\$237,047
Ag Pump		-	10	7	5	5	31.1	4.06	\$472,159
Marine	5	8	5	-	-	1	14.8	0.13	\$433,959
Totals	8	9	20	12	12	36	69	6	\$1,646,621

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Shasta County AQMD

The Shasta County AQMD has participated in the Carl Moyer Program in the program's second, third, fourth, seventh, and eighth years. For Years 2 through 4, the district received a total of \$324,727 in funding from ARB, which it matched with \$124,083 in district funds. In Year 4, the district returned \$19,593 in unspent funds to ARB; these funds were redistributed to the Tehama County APCD. For Years 7 and 8, the district received an additional \$431,499. The district supplied \$105,418 in local funds for the match requirement in Year 7 and received a waiver from the match requirement in Year 8. The Shasta County AQMD has committed all of its Year 7 funds to specific projects.

The Shasta County AQMD solicits applications for Carl Moyer Program funds through an RFP process. The district notifies potential applicants of funding availability by posting information and application material on the district's website and through outreach to potential applicants and local engine dealers. The district returned unused funds in Year 4 due to a staffing shortage and a lack of eligible projects. The district received applications for funding in excess of available funds in Year 7.

The Shasta County AQMD has used its Carl Moyer Program funds from Years 2 through 4 to fund 30 cleaner engines, including repowers for on-road, off-road, and agricultural irrigation pump engines. These projects reduce NOx emissions by about 42 tons per year and diesel PM emissions by about one ton per year, with an average cost-effectiveness of about \$1,400 per ton NOx reduced. Table A-31 summarizes the Carl Moyer Program projects funded, emission reductions achieved, and funds expended in Shasta County.

Table A-31: Shasta County AQMD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road		2	9	2			23.2	0.82	\$132,704
Off-Road	-	4	6	1	-	-	9.5	0.21	\$110,209
Ag Pump	-	2	2	2	-	-	9.4	0.30	\$65,690
Totals	-	8	17	5	-	-	42	1	\$308,603

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Siskiyou County APCD

The Siskiyou County APCD participated in the Carl Moyer Program in Years 5 and 6, receiving \$100,000 in funding each year from ARB. Due to a lack of qualified projects, the district transferred the Year 5 funds to Modoc County APCD so that the funds could be expended in a neighboring district where emission reductions would also benefit Siskiyou County. The Year 6 funds were returned to ARB for redistribution to the Monterey Bay Unified APCD, Sacramento Metropolitan AQMD, and Santa Barbara APCD. The district has expressed interest in continuing to participate in the Carl Moyer Program when eligible projects become available.

Tehama County APCD

The Tehama County APCD participated in the Carl Moyer Program during Years 3 through 7, receiving \$499,593 in program funding through Year 6 and an additional \$200,000 in Year 7. The district provided \$115,816 in match funds for Years 3 and 4, and received a waiver from the match requirement in program Years 5, 6, and 7. The district has expended \$62,955 of these funds but, due to lack of staffing, plans to return the remaining \$137,045 in unexpended Year 7 funds and \$14,961 in interest accumulated over the past five years. The district has elected not to participate in the Carl Moyer Program in Year 8.

The Tehama County APCD solicited applications for Carl Moyer Program funding through on a first-come, first-served basis. Applications are made available at the district's office and on the district's web site. The district also notifies local engine dealers of available funds. Prior to Year 7, the district received requests for funding far in excess of available funds.

The Tehama County APCD used its Carl Moyer Program funds from Years 3 through 6 to fund 52 cleaner engines, reducing NOx emissions by 46 tons per year and diesel PM emissions by about two tons per year, with an average cost-effectiveness of about \$1,900 per ton of NOx reduced. The majority of program funds have been used for agricultural pump engine replacement. On-road and off-road repower projects have also received funding. Table A-32 summarizes the Carl Moyer Program projects funded, emission reductions achieved, and funds expended in Tehama County.

Table A-32: Tehama County APCD Carl Moyer Program

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	-	-	-	0.1	-	-	0.04	-	\$2,270
Off-Road	-	-	1	-	-	-	0.54	0.03	\$8,570
Ag Pump	-	-	16	15	11	9	45.8	2.45	\$491,013
Totals	-	-	17	15	11	9	46	2	\$501,853

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Tuolumne County APCD

The Tuolumne County APCD participated in the Carl Moyer Program in Years 5 and 6, receiving \$200,000 in total funding from ARB. In Year 7, the Tuolumne County APCD received \$200,000 in Carl Moyer Program funding. The district received the minimum program allocation in each year and has therefore not been required to provide local match funding. The district did not participate in the program in Year 8.

The Tuolumne County APCD's outreach efforts include newspaper advertisements, mailings, and phone calls to prospective participants. The district accepts applications for funding on a first-come, first-served basis. A one-time board resolution allows the district's Air Pollution Control Officer to select projects and enter into contracts with program participants. Board approval is not necessary for each individual project.

The Tuolumne County APCD has provided Carl Moyer Program incentive funds for 12 on-road heavy-duty vehicle projects – one engine repower and 11 vehicle retrofits. These projects will achieve about two tons per year of NOx reductions and 0.01 tons per year of diesel PM reductions with an average cost-effectiveness of about \$23,400 per ton of NOx reduced. Table A-33 summarizes the Carl Moyer Program projects, emission reductions, and funds expended in Tuolumne County.

Table A-33: Tuolumne County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On Road	-	-	-	-	5	7	2.0	0.01	\$205,818
Totals	-	-	-	-	5	7	2.0	0.01	\$205,818

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Ventura County APCD

The Ventura County APCD has participated in the Carl Moyer Program since the program's inception. In Year 1 through 6, the district received \$5,061,540 in funding from ARB, which it matched with \$2,179,007 in local funding. The district has expended all of its Year 1 through 6 funding and has received an additional \$2,916,267 in program funding for Years 7 and 8, which it has matched with \$654,332 in local funds.

The Ventura County APCD solicits applications for program funding by issuing an RFP, with a preference for alternative-fueled projects. The district's outreach includes notification of the solicitation through mailing and e-mail lists, posting of notices on the district's website, publishing articles in the district's newsletter, sending out press releases, and contacting engine manufacturer representatives. The district typically accepts project applications for on-road, off-road, agricultural irrigation pump, and marine vessel engine repowers, and purchase of alternative-fueled on-road heavy-duty vehicles. In May 2006, ARB audited the Ventura County APCD's implementation of the Carl Moyer Program in Years 5 through 8. ARB's audit report, available in Appendix D, provides more information regarding the district's implementation of the Carl Moyer Program.

In Years 1 through 6, the Ventura County APCD provided Carl Moyer Program incentive funds for numerous project types, including purchase of new alternative-fueled street sweepers, and repower of on-road, off-road, and marine vessel engines. These projects achieve about 187 tons per year of NOx reductions and 13 tons per year of diesel PM reductions with an average cost-effectiveness of about \$2,900 per ton of NOx reduced. Table A-34 summarizes Carl Moyer Program projects funded, emission reductions achieved, and funds expended in Ventura County.

Table A-34: Ventura County APCD Carl Moyer Program Summary

Source Category/ Equipment Type	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road									
Line-haul Truck	8	8	15	1	4	9	29.5	0.91	\$1,602,924
Street Sweeper	-	2	-	-	-	-	0.4	0.01	\$18,440
Off-Road	-	-	-	-	2	-	7.0	0.17	\$122,887
Ag Pump	4	-	4	5	8	4	30.8	1.61	\$262,801
Marine									
Commercial Fishing	17	12	24	9	7	10	93.1	8.89	\$2,443,599
Other	3	-	-	4	3	7	25.7	1.59	\$610,889
Totals	32	22	43	19	24	30	187	13	\$5,061,540

Table includes projects funded as of October 1, 2006. Total funds expended may vary from funds received due to earned interest, cancelled projects, funds being rolled into the next funding cycle, or other factors.

Multi-District Projects

Health and Safety Code Section 44286 gives ARB the authority to reserve up to ten percent of each year's program funding for multi-district projects. These projects must operate a portion of the time outside their primary district or have significant air quality impacts in other air districts due to air pollutant transport. ARB utilized about \$500,000 in program funding for multi-district projects in Year 3. ARB began reserving ten percent of program funds for multi-district projects in Year 7 in order to direct these funds towards projects which meet a state priority.

ARB conducted a statewide solicitation for multidistrict projects for Year 7 and Year 8 funds in March 2005 and March 2006, respectively. To be eligible for funding, projects were required to reduce emissions from goods movement (including marine vessels and locomotives, cargo-handling equipment, and port trucks), construction equipment, or PM retrofit devices that also reduce NOx. ARB received applications for over five times the amount of available funds. Projects were scored based upon project cost-effectiveness, environmental justice, application completeness, and other criteria. The highest ranking projects were selected and notified of their awards in June of 2005 and 2006, respectively. For multi-district projects, the primary air district – typically the air district in which the project operates the most – receives project funding from ARB, contracts with the engine owner, and manages the project locally.

Multi-district projects in Years 3, 7, and 8 provided nearly \$12 million in grants to reduce emissions from 86 engines, including funds to repower 19 scrapers, and purchase 19 locomotive idle limiting devices and nine alternative technology switch locomotives. Year 7 and 8 projects are required to be completed by June 30th of 2007 and 2008, respectively. Once these projects are complete, multi-district projects will achieve 394 tons per year of NOx reductions and 14 tons per year of diesel PM reductions, with an average cost-effectiveness of about \$1,800 per ton of NOx reduced. Table A-35 summarizes information for multi-district projects selected for funding by ARB.

Table A-35: Carl Moyer Program Multi-District Project Summary

Source Category/ Equipment Type	Year 3	Year 7	Year 8	NOx Reductions (tpy)	PM Reductions (tpy)	Funds Total
On-Road	2			4.0	-	\$117,976
Off-Road Construction		19	26	148.4	5.03	\$3,301,854
Marine	6	4		90.8	3.72	\$1,332,503
Locomotive		1	28	150.6	5.16	\$7,126,532
Totals	8	24	54	394	14	\$11,878,865

Year 7 and 8 funds provided to air districts to enter into contract with project participants, but have not yet been expended.